SUPERFUND RESPONSE ACTION PRIORITY PANEL REVIEW FORM

Date Form Completed: 10/24/2013

General Site Information

Region:	5	City:	Hillsboro	State:	IL
CERCLIS EPA ID:	ILD980606941		CERCLIS Site Name:	Eagle Zinc Superfund Site	
NPL Status: (P/F/D)	F		Year Listed to NPL:	2007	

Brief Site Description: *(Site Type, Current and Future Land Use, General Site Contaminant and Media Info, Site Area and Location information.)*

The Eagle Zinc Site is located in a mixed industrial/commercial/residential area in Hillsboro, IL (Montgomery County). The current and future use of the site is commercial/industrial. The Site is approximately 132 acres and is covered with 23 building/structures over approximately 30 acres. The Site is divided into operable units (OUs). OU 1 consists of the contaminated buildings. An interim record of decision (ROD) was signed for OU 1 in September 2009. The ROD for OU 2 signed in September 2012 and addresses the contaminants of concern (heavy metals) in residue, sediment, and surface water that pose an unacceptable risk to human health and the environment in a commercial/industrial use scenario. OU1 has previously been ranked by the Prioritization Panel. OU2 is being ranked by the Panel at this time.

General Project Information

Type of Action:	Remedial Action	Site Charging SSID:	B5Y7
Operable Unit:	2	CERCLIS Action RAT Code:	RA002

Is this the final action for the site that will result in a site construction completion?	x Yes	☐ No
Will implementation of this action result in the Environmental Indicator for Human Exposure being brought under control?	x Yes	☐ No

Response Action Summary

Describe briefly site activities conducted in the past or currently underway:

Currently EPA is developing the OU2 remedial design. The OU2 design is expected to be completed by March 2014.

Specifically identify the discrete activities and site areas to be considered by this panel evaluation:

This panel will consider the remedial action for OU 2 which includes:

- Excavate and Stabilize Soil/Sediment/Waste
- On-site Consolidation and Containment of Contaminated Soil/Sediment/Waste/Buildings
- Stream Re-alignment and Wetland Mitigation.

Briefly describe additional work remaining at the site for construction completion after completion of discrete

activities being ranked:

After construction completion EPA will monitor the site for a year prior to passing on the Operation and Maintenance to IL EPA. The sediment and surface water monitoring is needed to ensure the effectiveness of the selected remedy. The selected remedy does not intend to restore the ground water aquifer to MCLs because the aquifer is not a potable source of water. Illinois EPA has classified the aquifer as a class 2 aquifer. The infrequent monitoring of the ground water is only necessary to ensure that the ground water contaminant levels are not increasing due to a problems with the on-site consolidation area.

Response Action Cost

Total Cost of Proposed Response Action:

($ amount should represent total funding need for new RA funding from national allowance above and beyond those funds anticipated to be utilized through special accounts or State Superfund Contracts.)

$15 Million

Source of Proposed Response Action Cost Amount:

(ROD, 30%, 60%, 90% RD, Contract Bid, USACE estimate, etc…)

30% Design

Breakout of Total Action Cost Planned Annual Need by Fiscal Year:

(If the estimated cost of the response action exceeds $10 million, please provide multiple funding scenarios for fiscal year needs; general planned annual need scenario, maximum funding scenario, and minimum funding scenario.)

$7.5M/year in 2014 and 2015

$5M/year from 2014 through 2016

Other information or assumptions associated with cost estimates?

N/A

Readiness Criteria

1. Date State Superfund Contract or State Cooperative Agreement will be signed (Month)?

The SSC was signed in September 2013.

2. If Non-Time Critical, is State cost sharing (provide details)?

N/A

3. If Remedial Action, when will Remedial Design be 95% complete?

March 2014

4. When will Region be able to obligate money to the site?

April 2014

5. Estimate when on-site construction activities will begin:

May 2014 (Assumes OU1 completed prior to initiation of OU2 activities or that OU1 and OU2 activities combined into a single action.)

6. Has CERCLIS been updated to consistently reflect project cost/readiness information?

Yes

Site/Project Name:	**Eagle Zinc**

Criteria #1 - RISKS TO HUMAN POPULATION EXPOSED (Weight Factor = 5)

Describe the exposure scenario(s) driving the risk and remedy. Include risk and exposure information on current/future use, on-site/off-site, media, exposure route, and receptors:

For lead, the risk model predicted that 72.6% of the industrial worker population and 97.4% of the construction work population would have blood lead levels above 10 micrograms per deciliter. For comparison, the EPA considers exposures to be acceptable as long as no more than 5 percent of the exposed population will exceed that level. For industrial/commercial workers antimony and zinc in surface soil and residue pose an unacceptable risk due to the elevated non-cancer hazard index (HI) estimate of 3. For future construction workers, the non-cancer HI estimates exceed threshold values for antimony, cobalt, nickel, and zinc, in soil and residue (0 to10 feet). The HI for construction worker is 10. Cadmium and zinc pose an unacceptable risk to aquatic organisms due to the levels of the two metals in surface water and sediment. The levels found in the sediment and surface water are two to three orders of magnitude higher than the ecological screening standards.

Estimate the number of people reasonably anticipated to be exposed in the absence of any future EPA action for each medium for the following time frames:

MEDIUM	<2yrs	<10yrs	>10yrs
Residue	30	150	200
Surface Water	0	0	0
Ground Water	0	0	0
Sediment	1	5	10

Discuss the likelihood that the above exposures will occur:

Currently the site is fenced and signs are posted, however, residences are nearby and evidence of trespassing exists.

Other Risk/Exposure Information?

N/A

Site/Project Name:	**Eagle Zinc**

Criteria #2 – SITE/CONTAMINANT STABILITY (Weight Factor = 5)

Describe the means/likelihood that contamination could impact other areas/media given current containment:

While the site contamination is generally stable, migration of contaminants off-site does occur overland flow. Water flows through residual material and settles into the sediment and surface water on-site and eventually off site.

Are the contaminants contained in engineered structure(s) that currently prevents migration of contaminants? Is this structure sound and likely to maintain its integrity?

No.

Are the contaminants in a physical form that limits the potential to migrate from the site? Is this physical condition reversible or permanent?

No.

Are there institutional physical controls that currently prevent exposure to contamination? How reliable is it estimated to be?

There are fences around the most accessible areas of the sites and signs to prevent trespassing, however, trespassing and scrapper traffic occurs on the site.

Other information on site/contaminant stability?

N/A

Site/Project Name:	**Eagle Zinc**

Criteria #3 – CONTAMINANT CHARACTERISTICS (Weight Factor = 3)

(Concentration, toxicity, and volume or area contaminated above health based levels)

List Principle Contaminants (Please provide average and high concentrations.):

(Provide upper end concentration (e.g. 95% upper confidence level for the mean, as is used in a risk assessment, or maximum value [assuming it is not a true outlier], along with a measure of how values are distributed {e.g. standard deviation} or a central tendency values [e.g., average].)

Contaminant	*Media	**Concentrations
Lead	Residue/SL	0.78 to 65,400 ppm (avg 6,500ppm)
Antimony	Residue/SL	0.34 to 665 ppm
Zinc	SW	179 to 26,000 ppb
Zinc	ST	400 to 23,000 ppm

*(*Media: AR – Air, SL – Soil, ST – Sediment, GW – Groundwater, SW – Surface Water)*

*(**Concentrations: Provide concentration measure used in the risk assessment and Record of Decision as the basis for the remedy.)*

Describe the characteristics of the contaminant with regards to its inherent toxicity and the significance of the concentrations and amount of the contaminant to site risk. *(Please include the clean up level of the contaminants discussed.)*

High levels of lead in the blood causes significant non cancerous affects to adults, teratogenic impacts to babies in utero, and irreversible mental and physical damage to children. The average lead level is 8 times higher than the industrial cleanup standard of 800 ppm.

Describe any additional information on contaminant concentrations which could provide a better context for the

distribution, amount, and/or extent of site contamination. *(e.g. frequency of detection/outlier concentrations, exposure point concentrations, maximum or average concentration values, etc.....)*
Contaminated waste and soil is located over the majority of the 132 acre site and is open to the elements. Lead averages approx 6,500 ppm with a high of 65,400 ppm.
Other information on contaminant characteristics?
None

Site/Project Name:	**Eagle Zinc**
Criteria #4 – THREAT TO SIGNIFICANT ENVIRONMENT (Weight Factor = 3) *(Endangered species or their critical habitats, sensitive environmental areas.)*	
Describe any observed or predicted adverse impacts on ecological receptors including their ecological significance, the likelihood of impacts occurring, and the estimated size of impacted area:	
Cadmium and zinc pose an unacceptable risk to aquatic organisms due to the levels of the two metals in surface water and sediment. There are no endangered species impacted by this contamination or cleanup action. However, there is approximately seven acres of wetland that will be destroyed and mitigated as part removing contamination and implementing the remedial action.	
Would natural recovery occur if no action was taken? ☐ Yes x No If yes, estimate how long this would take.	
No	
Other information on threat to significant environment?	
None	

Site/Project Name:	**Eagle Zinc**
Criteria #5 – PROGRAMMATIC CONSIDERATIONS (Weight Factor = 4) *(Innovative technologies, state/community acceptance, environmental justice, redevelopment, construction completion, economic redevelopment.)*	
Describe the degree to which the community accepts the response action.	
The community supports the selected OU1 and OU2 remedies. The town is increasingly frustrated with the lack of progress since the OU1 project has been waiting for remedial action funding since 2010.	
Describe the degree to which the State accepts the response action.	

The state concurs with the OU2 ROD and has already signed the SSC for OU2.
Describe other programmatic considerations, e.g.; natural resource damage claim pending, Brownfields site, use of innovative technology, construction completion, economic redevelopment, environmental justice, etc...
Completion of OU1 and OU2 would achieve Construction Completion, Human Exposure Under Control and Site-wide Ready for Anticipated Use. These accomplishments could be achieved within one or two years depending upon the availability and timing of funds. Both OUs are projected to take approximately 5 months each to complete. An Illinois UECA is already in place for the site so SWRAU will be achieved upon construction completion . Site completion would create over 100 acres of land available for commercial or industrial reuse. The local government and the community are eager to see this cleaned up so that the property can be used for economic redevelopment. There has been interest from non-local developers to purchase the site and redevelop it.